(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



. | 1881 - 1881 | 1881 | 1881 | 1881 | 1881 | 1882 | 1883 | 1883 | 1884 | 1885 | 1885 | 1885 | 1885 | 1885 | 1

(43) International Publication Date 22 July 2004 (22.07.2004)

PCT

(10) International Publication Number WO 2004/060174 A2

(51) International Patent Classification⁷:

A61B 17/14

(21) International Application Number:

PCT/US2003/041747

(22) International Filing Date:

31 December 2003 (31.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/437,359 31 December 2002 (31.12.2002) US 60/437,205 31 December 2002 (31.12.2002) US 60/478,661 13 June 2003 (13.06.2003) US

- (71) Applicant (for all designated States except US): PE-LIKAN TECHNOLOGIES INC. [US/US]; 1072 East Meadow Circle, Palo Alto, CA 94303 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ALDEN, Don [US/US]; 1312 Nelson Way, Sunnyvale, CA 94087 (US). BARROW-WILLAMS, Timothy Donald [GB/GB]; 42 Thorleye Road, Cambridge CB5 8NF (GB). DEAN, Charlie Michael [GB/GB]; 168 Sturton Street, Cambridge CB1 2QF (GB). HUGHES, Martin Lawerence [GB/GB]; 11 Ridgeway, Woburn Sands, Milton Keynes MK 17 8UT (GB). HUMPHRIES, Mark Robson [GB/GB]; Manor Mead, High Street, Great Chesterford, Nr Saffron Walden, Essex CB10 1PL (GB). JENNINGS, Douglas Ivan [GB/GB]; 73 Redwing Rise, Royston, Herts SG8 7XU (GB). NEUDECK, Thomas [GB/GB]; 14 Port Hill,

Hertford SG14 3EP (GB). **STEPHENSON, John Antony** [GB/GB]; 1 March Lane, Cherry Hinton, Cambridge CB1 3LG (GB).

- (74) Agent: TUNG, Hao Y.; Heller, Ehrman White & McAuliffe LLP, 275 Middlefield Road, Menlo Park, CA 94025-3506 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR LOADING PENETRATING MEMBERS

(57) Abstract: A body fluid sampling system is provided. In one embodiment, the system may comprise a penetrating member driver; a plurality of penetrating members sufficient for penetrating tissue; a tape coupling together at least two of the penetrating members; and a penetrating member release device removing the penetrating member from a sterile environment prior to use and moving the penetrating member into position to be operatively coupled to the penetrating member driver. The driver may comprises of a drive force generator for advancing the penetrating member and a processor coupled to the drive force generator capable of changing the direction and magnitude of force exerted on the penetrating member during the lancing cycle. The driver may further include a human interface on the housing providing at least one output for communicating with the patient.